ACTION PLAN
for
THE ORGANIZATION AND DELIVERY OF CHRONIC PAIN SERVICES IN NOVA SCOTIA

Nova Scotia Chronic Pain Working Group

July 19, 2006

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EXECUTIVE SUMMARY

In the Fall of 2005, the Branch of Acute and Tertiary Care of the Nova Scotia Department of Health commissioned a report, *Review of Pain Management Services in Nova Scotia*, of the existing chronic pain services available in Nova Scotia in comparison to the rest of the country. The Review found that there is a patchwork of pain management services in Nova Scotia, from a tertiary Pain Management Unit at the QEII Health Sciences Centre in Halifax to anesthesiologists providing some treatments at the Colchester Regional Hospital, to no services being provided in most District Health Authorities (DHA's).

Chronic pain is a complex problem with both clinical and psychological implications, it requires a comprehensive approach to evaluation and treatment. Acute and chronic pain underlie much of the economic burden and loss of quality of life and functioning associated with chronic diseases. Chronic pain affects 20% of Canadians and jumps to 60% for those over 65. [1]
It is estimated that as many as 182,000 Nova Scotians live with chronic pain.

It is acknowledged though, that the coordinated skills of many health disciplines are required and offer the best approach for treating patients with chronic pain. However, the majority of physicians are ill equipped to deal with chronic pain. Medical schools and other health professions provide little training in pain management and there is a severe shortage of treatment centres for chronic pain.

Nova Scotia has long wait lists for pain management services but this is the case in all provinces and territories. For example, studies from Quebec showed that the average wait for a first appointment for pain services is in excess of nine months, in Alberta it is 12 months.[2] "In most parts of Canada, multidisciplinary clinics are few and far between. Among those that do exist, the waiting lists can run 2-3 years."[3] The findings of the *Review of Pain Management Services in Nova Scotia* point to dedicated professionals working long hours to provide the best care possible to patients with chronic pain, however, there are a number of drawbacks in the current system in the province:

- there are not enough health care professionals with training in pain management

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[1] *Chronic Pain in Canada: Prevalence, Treatment, Impact and the Role of Opioid Analgesia,* Moulin, D., et al., Pain Research and Management, 2002. 7: pages179-84

[2] *Management of Chronic Non-Cancer Pain: Organization of Health Services;* Dobkin, Patricia, et al., AETMIS, Quebec, May 2006, page 29

[3] *Politics Hurts: A Life of Pain, Day 4,* Ottawa Sun, October 23, 2005.

- there is no central wait list, so it is possible for a patient to show up on more than one list
- lack of communication between DHA's about what services are being provided in the province
- lack of space and equipment to provide optimum service to patients
- remuneration does not match the time spent with patients
- lack of evaluation of programs so that one does not know how well the programs are being delivered

The purpose of this Action Plan is to provide a roadmap to help provide integrated, coordinated quality pain services to the citizens of Nova Scotia.

Key principles in this Action Plan focus on the importance of knowledge of front line and primary care providers to provide pain services, the integration of services between programs, the proper utilization of resources and the provision of quality evidence-informed care.

Major goals of the Plan are to develop a seamless continuum of pain services ensuring equitable access, ensuring adequate education for providers/patients and ensuring quality evidence-informed care through program evaluation and research.

An integrated approach to pain management in Nova Scotia is needed. This approach must cover human resources, education and communication issues. A hierarchical and integrated model, incorporating the principles of stepped care and employing an interdisciplinary approach at all levels of care, should be used for the delivery of services for chronic pain patients. Educational strategies for health care professionals should be developed and supported, in order to promote evidence-based practice in assessment, diagnosis, treatment, rehabilitation and management. Monitoring chronic pain services and other quality assurance mechanisms should be included. There is a need to formally connect the various parts of the programs being offered to ensure the establishment of a true continuum of services. An Implementation Committee should be set up in September of 2006 to put this Action Plan into place.

The recommendations in this Action Plan cover 17 key areas:

1. **A Chronic Pain Model for Nova Scotia**—a model of how comprehensive chronic pain services can be delivered in Nova Scotia is provided
2. **Prevention**—working with the Department of Health Promotion and Protection on Chronic Disease Prevention in the area of Chronic Pain.
3. **Self Management**—active liaison with existing programs
4. **Triage**—development and implementation of expanded triage tools
5. **Senior Administration Support**—senior administration must recognize and support chronic pain treatment as a separate and defined entity within the system
6. **Telehealth**—exploration of a consultation service for community physicians
7. **Communication**—better coordination through a seamless system

8. **Common Wait List**—exploration of one list for patient care
9. **Post-Secondary Education**—support for introduction and expansion of undergraduate and postgraduate pain programs.
10. **Education and Training**—assistance for Continuing Education (CE) for all health professionals
11. **Human Resources and Remuneration**—supply of health care providers, alternate, appropriate, payment models for physicians caring for patients with chronic pain.
12. **Navigation**—care pathways through the system to help providers and patients
13. **Best Practices**—support best practice guidelines for chronic pain treatment in the province
14. **Promote and Support Research**—recognizing the importance of research for chronic pain.
15. **Transition**—improved facilitation of patients moving between levels of the system, and address IWK transition issues
16. **Liaison with N.S. Workers' Compensation Board**—maximize outcome opportunities with the WCB
17. **Evaluation**—use common measurement to evaluate the provincial pain programs

INTRODUCTION

"Unrelieved acute pain after surgery and trauma increases the risk of post-operative and post-traumatic cardiac, respiratory and gastrointestinal complications, greater morbidity, higher costs, and even mortality. Even more important, regarding health care costs and patients' quality of life, is the high risk of unrelieved acute pain triggering chronic pain. Acute and chronic pain underlies much of the economic burden and loss of quality of life and functioning associated with the killer diseases, especially when nerve damage from surgery or trauma progresses to chronic neuropathic pain. These pain problems are frequently misunderstood and misdiagnosed, patients are stigmatized, and their pain condition is poorly managed. Their chronic pain has become a disease in its own right."[4]

According to research from Dr. Sandra LeFort at Memorial University, of patients treated, chronic pain patients require the most time with physicians, per appointment. There is much evidence that chronic pain is associated with frequent use of health services; according to the Canadian National Population Health Survey of 1994/95, those with severe chronic pain made more physician contacts (mean of 12.9 versus 3.8 visits) and stayed in hospital longer (mean of 3.9 versus 0.7 days), compared to those without any chronic pain in the previous year.

For spinal injuries in particular, and for those patients who are employed, "patients with activity-related spinal disorders rarely recover overnight. However, we know from the aggregate data that 74.2% of workers reporting activity-related spinal disorders will be returned to work within one month. Also, the 7.4% of workers with activity-related spinal disorders who remain idle for more than 6 months account for 75.6% of compensation and medical costs related to these disorders. Accordingly, management strategies should be directed at maximizing the number of workers returning to work before one month and minimizing the number whose spinal disorders keeps them idle for longer than 6 months. Thus, returning to work as an objective, is both sound clinically and economically." [5] If family physicians do not have secondary level programs or

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[4] *Why Pain Control Matters in a World Full of Killer Diseases*, International Association for the Study of Pain.

[5] *Scientific Approach to the Assessment and Management of Activity-related Spinal Disorders, A Monograph for Clinicians, Report of the Quebec Task Force on Spinal Disorder;* Spitzer, Walter, et al., Spine, Volume 12, Number 73, September 1997, page S31

tertiary level programs with reasonable wait times, then the pain treatment system can be inefficient and non-beneficial for the patient.

According to Dr. Diane LaChapelle, UNB, in her article, *Chronic Pain: A Silent Epidemic in Canada"*, it is estimated that 80% of physician visits in Canada result from some sort of pain.[6] However, the majority of physicians are ill-equipped to deal with chronic pain. Medical schools provide little training in pain management, there are few opportunities for post-graduate training in pain specialties and there is a severe shortage of treatment centres for chronic pain. All chronic pain specialists have received specialized training for pain management, but there is no specific credentialling process for pain.

Chronic pain is a complex problem with both clinical and psychological implications. It requires a comprehensive approach to evaluation and treatment. No one specialty or procedure will, of itself, be effective in remedying chronic pain. The coordinated skills of many health disciplines are required. There is widespread acceptance that this is the best approach to treating patients with chronic pain, although it is not realistic to establish a multidisciplinary clinic in every community. The ideal multidisciplinary pain clinic represents a program that provides medical specialists, extensive diagnostic, therapeutic and rehabilitative services. A multidisciplinary team consists of at least most of the following:

- anesthesiologists
- nurses
- physiotherapists
- occupational therapists
- psychologists
- social workers
- psychiatrists
- physiatrists
- administrative staff

The *Review of Pain Management Services in Nova Scotia* consisted of a literature review and a survey/interview with chronic pain providers in Nova Scotia and a scan of services offered across the country. Information was obtained about the types of pain management services provided, referral processes, issues/gaps. A brief overview of the major issues identified in the *Review* are included in the Issues section of this Action Plan.

In January 2006, a Chronic Pain Working Group was established by the Minister of Health. The Working Group was made up of representatives from Acute & Tertiary Care of the Department of Health, Physician Services and Primary Care, all District Health Authorities and the IWK. A complete list of the members can be found in Appendix 1. The focus of the Working Group was on chronic, non-cancer pain, and non-acute pain. In practice, the structures and processes for managing chronic cancer pain and chronic non-cancer pain will overlap. There is also valuable expertise in the area of palliative care in

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[6] *Chronic Pain: A Silent Epidemic in Canada*, LaChapelle, Diane; UNB Perspectives, University of New Brunswick, October 18, 2004.

Nova Scotia, which may be drawn on to inform organizational approaches supported by this Action Plan. The Group also recognized the direct correlation between acute and chronic pain, in that acute pain, if not addressed, can trigger chronic pain.

The Working Group discussed issues of planning, implementation, human resources, remuneration, current delivery models in N.S. and in other jurisdictions, and ongoing improvement of pain management services in N.S.

The objectives of the N.S. Chronic Pain Management Working Group were as follows:

- To develop the vision for chronic pain management services for Nova Scotia within the broad context of a chronic disease model;
- To determine where chronic pain management services will be delivered in the province, including identifying the roles for primary, secondary and tertiary care providers;
- To identify common service delivery models, standards and evaluation to ensure appropriate access to services;
- To determine the resources (financial and human) and related enablers (e.g. CE requirements; fee codes for physicians) required to deliver chronic pain management services in Nova Scotia;
- To develop an Action Plan that includes a comprehensive strategy incorporating at a minimum the points identified above in the context of the current fiscal realities of the Province.

The Working Group developed a Roadmap to focus on the areas of priority for chronic pain services in the province. This Action Plan is a provincial service delivery framework which will address pain management in Nova Scotia. The Action Plan's key focus is on the continuum of community, primary, secondary and tertiary care.

CURRENT SITUATION IN NOVA SCOTIA

This report was requested by the Minister of Health in Nova Scotia to help determine how to improve the delivery of chronic pain services in the province. The report concerns pain not related to cancer. "Appropriate, timely and evidence-based treatment of patients suffering from chronic pain has the potential to have an impact on multiple stakeholders: that is, health care policy-makers in government, managers at health care facilities, health care professionals providing services, and, most importantly, patients who receive care and their family members who share the burden imposed by chronic pain. [7]

Historically, pain management in the province has been addressed with the university-based Pain Management Unit (PMU) at the Queen Elizabeth Health Sciences Centre (QEII) in Halifax being utilized as a secondary and tertiary level pain centre for the province. Within various regions of the province, clinicians have developed pain centres ranging from an on-demand type, where patients are seen in outpatient departments with no dedicated space and virtually no back-up services to other clinics which are utilizing committed resources in a multi-disciplinary arrangement within their regional hospital. The current, dedicated pain services in the DHA's can be found in Table 1.

Table 1

Dedicated Chronic Pain Management Services by District

DHA'S 1 TO 7	No Dedicated Services
DHA 8	Pain Clinic with 2 Anesthesiologists, 0.4 nursing staff, 0.2 physiotherapist, 0.5 consultant psychologist, .6 clerical, .2 diagnostic imaging tech., clinic is available 4 days per week
DHA 9	Hants—Clinic one day per week, 1 anaesthesiologist, mental health support, and pharmacy support for the self-management program Dartmouth General Hospital-- No dedicated resources PMU, QEII—Physicians 2.4 FTE, psychologist .82 FTE, RN 2.0 FTE, anaesthesia tech, 1.0 FTE, physio. 2.0 FTE, occupational therapy .8 FTE, dietician .1 FTE, vocational counseling .4 FTE, clerical 3.0 FTE
IWK	Pain Clinic with 1 anaesthesiologist, 1 clinical nurse specialist, 0.2 FTE physiotherapist, 0.2 FTE psychologist, 0.2 FTE clinical pharmacist, 0.2 admin support

There is a perception in Nova Scotia that wait lists for these services have increased throughout the province and in fact, at the Cape Breton Regional Hospital, five years ago the wait time was a few weeks, in the 2004 period it was over two years, now with a second anaesthesiologist, it has dropped down to 16 months.

[7] *Management of Chronic Non-Cancer Pain: Organization of Health Services;* Dobkin, Patricia, et al., AETMIS, Quebec, May 2006, page v.

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Management of Chronic Non-Cancer Pain – Organization of Health Services. Dobkin, Patricia, et al. AETMIS, Québec, May 2000, pages

Currently, there are 1400 people awaiting assessment at the Pain Management Unit in Halifax. As a provincial and regional referral centre, the Unit receives approximately 100 new referrals per month. Approximately 200 patients per year from outside of Nova Scotia are treated at the PMU. Given the current model, the Unit is able to see 40 new assessments per month and therefore, the wait list grows by 60 patients per month. In addition to the Capital District Health Authority (CDHA), other District Health Authorities have identified chronic pain management as a growing issue.

Approximately 181,601 people self-report some form of chronic pain in N.S. Based on the Canadian Community Health Survey (CCHS) for 2003, (the year for which the most recent data is available), approximately 20% of each DHA's population reports regular pain and discomfort.[8] A map of Self-Reported Pain by DHA can be found in Appendix 2. While patients receive excellent care in Nova Scotia, it does not appear that the present organizational structure is able to address all the pain needs of the province. Pain clinic therapy is currently not readily available to many Nova Scotians. Lack of trained professionals and organizational deficits result in bottlenecks in treating patients. The professionals treating patients in Nova Scotia advise that much suffering and hardship– personal and economic, are incurred due to the length of the wait for treatment.

There is a need for better pain management in Nova Scotia. According to pain management practitioners and researchers, early intervention is needed to reverse or prevent intractable pain. In addition, lack of pain management services contributes to misuse or overuse of analgesic medications. This has been/is a problem in Nova Scotia (e.g., Oxy-Contin misuse and diversion in Cape Breton).

Pain professionals in Nova Scotia have identified the need for additional physicians specialized in pain management as well as nursing, allied health, support staff, space and equipment in order to serve the current demand for pain management services in the Province

[8] *Percentage of Self-Reported Chronic Pain*, Canadian Community Health Survey, Cycle 2.1, 2003

ISSUES IMPACTING CARE IN NOVA SCOTIA

Access

There are a variety of barriers to access for both primary and specialized services for people with pain in all sectors of the health care system in Nova Scotia. In primary care settings, family physicians do not have access to support services to assist them in the care of their patients with chronic pain. For example, there are few psychologists and physiotherapists with specialized skills in pain in the majority of regions in the province.

Access to multidisciplinary programs is limited by the nature of the referral process, by geographic location and by cost and resource issues. This situation is not unique to Nova Scotia. In the U.K. for example, only 1% of those with chronic pain are thought to reach a specialty pain clinic. [9]

Limited access to primary care providers and specialists, for a variety of reasons, and delayed access to services such as pain clinics for those needing such care, contribute to the suffering and disability of chronic pain patients.[10]

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[9] *Randomized controlled trial of a community-based psychoeducation program for the self-management of chronic pain;* LeFort, Sandra, et al; Pain 74, 1998, page 298.

[10] *Management of Chronic Non-Cancer Pain: Organization of Health Services;* Dobkin, Patricia, et al., AETMIS, Quebec, May 2006, page 17

Referral
Referrals between the levels of care in Nova Scotia has been identified as an area lacking coordination and clarity. Again, Nova Scotia is not alone on this issue. Over half of the primary care organizations surveyed in the U.K. did not have a "defined protocol for referral" to pain clinic services.[11] A few issues arise with the referral process. The first relates to knowing when and where to refer a patient. The second issue relates to patient access to the next level of care, be it for diagnostic testing or treatment, which can be problematic. Finally, the referring family physician should state explicitly that she/he will continue to treat the patient once the latter is discharged from specialty care. Policies should state from whom referrals will be accepted.

Expediency
Expediency in terms of seeing the patient as soon as possible, is something that was stated strongly as being crucial to effective care, by the pain specialists in the Province.

Communication/Wait Lists
A consistent problem in many health care systems is the lack of communication both between health care professionals and between levels of care.

Currently, there is no provincial information sharing system that can show the number of patients seen, care provided and treatment outcomes. There is no information sharing in the province regarding who is on which wait list. It is possible to have the same patient on more than one wait list, i.e., a patient on the Cape Breton Regional Hospital wait list could be on the list for the PMU at the QEII.

When information technology is employed to set up data collection methods in the planning stage of services, both patient outcomes and factors related to quality control can be monitored.[12]

Education and Training
For health care providers involved in chronic pain management in the province, there has been limited focus on appropriately preparing these providers and on their continued training. The QEII PMU serves a key role in educating physicians in the management of chronic pain. Its plan is to increase this role in the future in an effort to educate primary care physicians to do more pain management within the community. This will include development of education modules for Continuing Medical Education (CE), clinical traineeships for family physicians and other specialists, and expansion of the curriculum in chronic pain management in the medical school as well as at the fellowship level.

The QEII PMU wants to develop a training module for family physicians interested in becoming more involved in the care of patients with chronic pain. Subsequent to the training module, it is hoped that family practitioners will be willing to take on a good part of the care of patients requiring pain management services. In the community, it makes sense to give family physicians the tools to do chronic pain work. In some cases the

[11] Ibid
[12] Ibid page 44

family practitioner will be able to assume all of the care for their patients with chronic pain, and in other cases they will require consultation and support with a pain management specialist. In most cases, subsequent to consultation, it is anticipated that the family practitioner will again take on the majority of follow-up care.

Patients who suffer from chronic pain have complex care needs that are time consuming in the context of a family practice. In these types of cases, family practitioners may avoid patients with chronic pain due to this complexity. In addition, there may be some discomfort related to the medications that patients with chronic pain may be taking. This is especially the case with opioid medications, and will become more the case as cannabinoid medications are introduced. Improved frontline management will assist in improving access to specialists and ultimately, improve the care of Nova Scotians suffering from chronic pain.

Remuneration

In some cases the remuneration that family physicians receive to see patients with chronic pain does not match the long length of time they have to spend with these patients. Chronic pain, in general is viewed as difficult to treat and the nature of reimbursement policies may discourage physicians from taking care of these patients due to the time-consuming nature of case management.[13] Anesthesiologists argue that chronic pain is generally an "add-on" to their already busy OR schedules.

Resources

DHA representatives identified that there is interest in doing chronic pain work in their area, but without the resources to support this work, it can't get done. Hospital-based family physicians who are interested in treating and doing follow-up with patients with chronic pain, need coordinated assistance—dedicated physiotherapist, administrative support, space, etc.

Outcome Measurement and Evaluation

With few exceptions, there is little in the way of outcome evaluation for pain assessment and management within the health system. Private organizations serving third party payers appear to have more sophisticated methods of evaluation than the public system.

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[13] *Management of Chronic Non-Cancer Pain: Organization of Health Services;* Dobkin, Patricia, et al., AETMIS, Quebec, May 2006, page 42

ROADMAP

The first task the Working Group set for itself was to identify as many of the issues as possible with the delivery of chronic pain services in Nova Scotia. The following list is a Roadmap that focused the discussions of the Working Group which led to this Action Plan. One of the main goals of the Working Group was to develop provincial approaches to limit the number of patients that end up having to go to the Pain Management Unit at the QEII.

ROADMAP FOR CHRONIC PAIN SERVICES IN NOVA SCOTIA

TOP PRIORITIES

- Human Resource Supply and the Health Care Team
- Systems response for Nova Scotia patients with pain
- Define role of tertiary, secondary and primary treatment
- Access—timely and streamlined
- Preparation/knowledge of primary care providers
- Standards development/best practices sharing
- Transition of Care—Pediatrics to adult
- Chronic disease model and prevention
- Undergraduate and graduate teaching—what is presently available in N.S.

Third Party Partners—WCB, private physiotherapy clinics, CFP, Private Insurance, Arthritis Society, other providers outside the system

PREVENTION/EARLY INTERVENTION/COMMUNITY	PRIMARY CARE	SECONDARY CARE	TERTIARY CARE
• School body mechanics, chairs, backpacks, diet and exercise • Workplace environmental changes, OHS, seating, lifting, repetitive strain, return-to-work • Community diet and exercise, self help programs, coping • Relationship with the Department of Health Promotion and Protection	• Appropriate testing and access • Education of experts and patients • Funding • Treatment guidelines • Clarity—consistency between disciplines/communication • Appropriate referral • Cost-effectiveness	• Regional beyond primary • Access at this level and to other levels • Resources • Space/self management • Multidisciplinary pain treatment	• QEII and IWK • Sharing of services • Define tertiary role • HR—capacity, creativity in recruitment—knowing what you want, clarity around role/referrals, education of experts • Interdisciplinary team—RN, Physio, OT, Psychology • Provincial standards—skills • Telehealth • Education and research role

COMMON THEMES AT ALL LEVELS	ENABLERS	SUCCESS FACTORS
Access Education Standards Outcomes Senior Administration support Human Resources	Appropriate payment Demand/Supply Resources—human, capital, operating Common standards Communication and support Score maps—head and neck, leg pain, shoulder, back, Complex Regional Pain Syndrome (CRPS)	Return to Productive Life Access to education Easy, two way access and communication Close to home Best outcomes Monitor and evaluate Fast and cost effective Supply/Demand balance

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MOVING FORWARD-- THE CONTINUUM OF CHRONIC PAIN CARE SERVICES IN NOVA SCOTIA

PREVENTION

Prevention of chronic pain is the first step in the continuum of services in the Province. In terms of chronic pain, there are three key prevention settings identified by the Working Group: school, workplace and community.

Schools

The Nova Scotia Department of Education has "Ergonomics for Educators", which has links to information about adapting equipment to the physical needs of children. The Department also provides information to reduce the likelihood of injury to children in three common areas of concern– computers, backpacks and video game playing. The Department of Health Promotion and Protection has initiatives that address healthy eating and exercise for school-aged children, such as the "Health Promoting Schools Program". Some of the Health Promoting School plans involve creating community partnerships to develop action plans, and assessment tools to evaluate elementary school students to understand what is needed for an overall improvement in active living and nutrition.

Doctors Nova Scotia has a "Youth Running For Fun Program" which is a free school-based running program designed to teach youth the fundamentals of running in a fun and safe atmosphere. In the 2005/06 school year, over 6500 children participated from 108 schools across the province.

Workplace

"Prevention, of course, is the ultimate management strategy. The need to educate, orient and train workers in matters of spinal health and safety and to identify and correct ergonomic risk factors that lead to spinal disorders in workers cannot be overstressed."[14] The Workers Compensation Board and Occupational Health and Safety (OHS) services across the province, offer employees information on seating, lifting, repetitive strain, etc.

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[14] *Scientific Approach to the Assessment and Management of Activity-related Spinal Disorders, A Monograph for Clinicians, Report of the Quebec Task Force on Spinal Disorder;* Spitzer, Walter, et al., Spine, Volume 12, Number 73, September 1997, page S34

The Department of Environment and Labour offers information about ergonomics, provides names of OH&S consultants in N.S., training courses, plus extensive links to health and safety resources.

The Department of Health Promotion & Protection has begun a project with the Department of Justice as a pilot for the N.S. public service, called Healthy Life Works. The purpose is to design, implement and evaluate a template for comprehensive and integrated workplace wellness programs.

Community
Healthy eating and exercise information is offered through the Department of Health Promotion & Protection. Numerous organizations provide information on healthy lifestyles—i.e., Heart and Stroke Foundation's "Move More" program which is built on Canada's Physical Activity Guide to Healthy Active Living and targets people who have not been active for an extended period of time.

SELF MANAGEMENT

"The best outcomes are achieved in patients treated in group-based pain management programs using cognitive behavioural therapy to improve physical function, change unhelpful thinking, and improve patients' understanding of their situation."[15] Self-management programs attempt to train a patient in effective self-management strategies to maximize self-reliance and reduced use of health care resources, including drugs. Versions of this approach have been reported with patients experiencing a wide range of conditions, including arthritis, general chronic pain, chronic headaches, chronic cancer pain and chronic illness generally.[16] These programs are more successful if the strategy includes utilizing the support and encouragement of the patient's family doctor or specialist as well as their family or close friends, to maintain their self-management goals.[17]

Given the scope and cost of chronic pain as well as the personal suffering, there is a need for low-cost, accessible and effective interventions that will help people find ways to better manage this difficult problem. One example of an accessible, community-based approach is the Arthritis Self-Management Program (ASMP), based on the model designed by Dr. Kate Lorig at Stanford University. It is a standardized 12 hour psychoeducation group program and uses a detailed protocol that has been widely disseminated through national Arthritis Societies/Foundations in the United States, Canada, Great Britain, Australia and New Zealand. [18] The program has been delivered

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[15] *The Management of Persistent Pain*, Goucke C.R; Medical Journal of Australia; May 5, 2003, page 444
[16] *When to refer to a pain clinic;* Nicholas, Michael; Best Practice & Research Clinical Rheumatology, Vol.18, No.4, page 617
[17] Ibid
[18] *Randomized controlled trial of a community-based psychoeducation program for the self-management of chronic pain;* LeFort, Sandra, et al; Pain 74, 1998, page 298.

by both generalist health care providers and by trained lay leaders. The ASMP has been evaluated in four randomized clinical trials and has demonstrated efficacy in improving aspects of health status such as pain, depression and disability. The evidence suggests that the ASMP may be a practical, cost-effective prototype on which to base educational programs for those with chronic non-malignant pain.

In Newfoundland and Labrador, Dr. Sandra LeFort of Memorial University adapted the ASMP into a chronic pain program called the Chronic Pain Self-Management Program. It is a low-cost, community-based, nurse-delivered group psychoeducation program. Post-evaluation, the group participants made significant short-term improvements in pain, dependency, vitality, aspects of role functioning, life satisfaction and in self-efficacy and resourcefulness. According to Dr. LeFort, this intervention has the potential to be reliably delivered at low cost in varied urban and rural community settings and hence be widely accessible to a greater number of people suffering from chronic pain.

A chronic disease self-management program is offered in B.C. There are also chronic care models in the Northwest Territories, New Brunswick, Saskatchewan and Alberta which use self-management as a component of their overall chronic disease programs. In Nova Scotia the Arthritis Society has recently held chronic pain self-management seminars in 34 communities.

Hants Community Hospital has developed a self-management program coordinated through its mental health unit which uses community resources. It has a multidisciplinary team consisting of a community mental health nurse, occupational therapist, nutritionist, physiotherapist, social worker and it uses a community pharmacist. The purpose of the program is to learn skills, gain information and share experiences to improve management of long term pain and its impact on participants' lives. The Valley Regional Hospital has a self-management service which is conducted by a mental health specialist. However, there has not been an opportunity at this point to evaluate the outcomes of these programs.

Self-management is part of a seamless chronic pain delivery system when there are partnerships with community agencies to develop interventions that fill gaps in needed services. Self-management programs in the chronic pain continuum of care are successful when providers can identify effective programs and encourage patients to participate.[19]

The QEII's PMU has a self-management program which comes at the end of the patient's treatment plan. As a loop back from tertiary care to self-management, the PMU will be examining the introduction of an early intervention/assessment pain program when their new physiatrist starts this summer.

The Department of Health will be reviewing the establishment of a cross-disease program for self-management that will include primary care. This is an opportunity to bring

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[19] *Chronic Care-Navigating the Perfect Storm*; Gould, Laurie, Fraser Health Authority, B.C., Presentation at the Chronic Care: Maximizing the Concept of Self Management conference, Halifax, April 20, 2006

programs together: diabetes self-management, arthritis self-management and chronic pain self-management may fit here.

PRIMARY CARE

"Back complaints still constitute the second most common symptom (after upper respiratory complaints) prompting general practice encounters."[20] The over-riding emphasis in managing patients with persistent non-cancer pain should be on improvement in function, and there is much that can be done by general practitioners to initiate effective treatment options for these patients. Combining non-drug treatment strategies with pharmacotherapy, backed up by a care plan that can be shared with a pain centre, will go a long way towards improving quality of life for this complex patient group.[21]

In a Quebec College of Physicians study done in 1998, it indicated that physicians at the primary care level can evaluate, treat and follow most chronic pain patients rather than having to refer the patient to other levels of care.[22] This reinforces the key role of the GP in the care of patients with chronic pain. Individual family physicians may well be able to manage the medical aspects of a case, but if they lack the ready access to other providers, such as clinical psychologists and physiotherapists, then referral to a multidisciplinary team is appropriate. This may occur early in the development of a condition such as Complex Regional Pain Syndrome (characterized by burning pain and abnormalities in the sensory, motor and autonomic nervous systems[23]) or later when initial efforts to encourage rehabilitation and return to normal activities have proven unsuccessful.

In studies from Alberta, primary care physicians mentioned a variety of challenges for the care of their patients, from lack of basic equipment to lack of pain specialists with whom to consult. Such limitations were thought to result in constant delays and long waiting lists that in turn negatively impact their patients' quality of life. In order to carry out their roles and responsibilities, most reported the need for continued education in pain management techniques[24]—a key element which was identified by the Nova Scotia Chronic Pain Working Group that will be discussed in a later section of this report.

SECONDARY CARE

Non-teaching hospitals and can be considered "secondary care" facilities. Specialists can

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[20] *Breaking the Back of Back Pain,* The Medical Journal of Australia, 2001, page 456

[21] *The Management of Persistent Pain,* Goucke C.R; The Medical Journal of Australia; May 5, 2003, page 447

[22] *Management of Chronic Non-Cancer Pain: Organization of Health Services;* Dobkin, Patricia, et al., AETMIS, Quebec, May 2006, page 21

[23] Ibid, page 40

[24] Ibid page 21

also be considered part of secondary care, requiring referral from the primary care level in order to be consulted by patients. Medical specialists serve to further the diagnostic process for a patient with chronic pain (e.g. a rheumatologist may diagnose fibromyalgia) and provide treatment recommendations to the referring GP. The specialist sometimes continues to monitor the patient with regard to care for the specific problem but expects the GP to treat the patient's other medical problems. Specialists, in turn may refer complex cases to a multidisciplinary clinic, when they recognize that pain remains unresolved after treatment attempts. Nurses assist physicians with procedures, educate patients, communicate with families and coordinate patient care.

In the Quebec Health Technology Assessment Agency's review of the organization of health services for chronic non-cancer pain, it found that there was less information in the literature pertaining to the structures and processes involved in secondary health services. For patients who are referred from primary care to secondary care and also to tertiary care, the diagnosis of "Pain Disorder" which would describe most of those patients attending a pain clinic, is generally regarded as not particularly useful. [25] Instead, a formulation of the presenting problems, incorporating the known or assumed biological bases for the patient's symptoms as well as the contributing psychological and environmental modulating factors is generally more useful for planning interventions that may be directed at one or more different facets.[26]
Secondary providers can consider referral to a pain centre when:

- A trial of opioids fails to provide pain relief
- The patient fails to improve in function
- The patient has difficult-to-control neuropathic pain
- A satisfactory diagnosis can not be reached
- There are complex psychosocial influences
- Pain is accompanied by a history of medication misuse[27]

Reviews of literature by QEII PMU staff suggest first line drug therapy should include analgesic antidepressants. Referral to tertiary care should not happen until a tricyclic trial has failed.

Further to the guidelines above, if a patient (with non-specific back pain) is having difficulty returning to work at 4-12 weeks after onset, "intervention packages" incorporating education, reassurance/advice, exercises and behavioural pain management may support the patient's recovery.[28] Such packages could be available in a re-designed chronic pain secondary care system in Nova Scotia.

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[25] *When to refer to a pain clinic*; Nicholas, Michael; Best Practice & Research Clinical Rheumatology, Vol.18, No.4, page 616
[26] Ibid
[27] *The Management of Persistent Pain*, Goucke C.R; The Medical Journal of Australia; May 5, 2003, page 447

[28] *When to refer to a pain clinic*; Nicholas, Michael; Best Practice & Research Clinical Rheumatology, Vol.18, No.4, page 625

For referrals from secondary care to the tertiary centres in Halifax, "adequate preparation for the referral should include an explanation of the basis for the patient's pain and a review of treatment options. In this context, the pain clinic can be introduced as a logical and considered approach rather than a sign of desperation or hopelessness. Since curative treatments would normally have been excluded, the pain clinic may be introduced as an opportunity to obtain a comprehensive review of the patient's condition, to ensure that no sensible option has been overlooked and to provide advice on better ways of managing pain for the longer term. Expectations of treatment options should include both pharmacological and behavioural (self-management) avenues, much like the options for other chronic conditions, such as diabetes or asthma. The patient should be advised that the pain clinic will assess the "whole" person and the problems caused by the pain, rather than just the cause of the pain (since that has already been thoroughly investigated). This will entail an assessment by a clinical psychologist or psychiatrist who has particular expertise in this area. If the patient raises any concerns about the referral, these should be addressed by the treating doctor as openly and directly as possible."[29]

It should also be emphasized that the pain service involvement of the multidisciplinary clinic will be time-limited and the patient's ongoing care will be provided by his/her primary practitioner.

TERTIARY CARE/MULTIDISCIPLINARY PAIN CLINICS

While most patients referred to a pain clinic are likely to have had previous trials of different treatments for their pain (especially pharmacological and physical modalities), the pain clinic may offer an opportunity to revisit the same agents or interventions, but this time within the context of a multi-pronged approach following a comprehensive multidisciplinary assessment.[30]

While pain clinics should have staff with considerable experience in the use of available pharmacological agents, their comprehensive staffing can also facilitate the provision of simultaneous advice and support for the patient on his/her daily management strategies that may complement (or provide alternatives to) the use of medication. Thus, in addition to following a particular drug regimen, the patient may also receive help from the pain clinic's psychologist and physiotherapist in modifying their daily activity patterns and in planning a graduated increment in activities. Nurses assist with drug-delivery systems such as indwelling epidural infusion pumps, intrathecal systems, transdermal patches and regional anaesthesia.[31] At the PMU, phone consultations with the patients is also a significant role for the nurse. An outline of the roles of staff members of a multidisciplinary clinic can be found in Table 2.

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[29] Ibid

[30] Ibid, page 616

[31] *Management of Chronic Non-Cancer Pain: Organization of Health Services;* Dobkin, Patricia, et al., AETMIS, Quebec, May 2006, page vii

Table 2. ROLES OF STAFF MEMBERS AT MULTIDISCIPLINARY CLINICS

Staff Member	*Functions*
Medical director/physician	• Responsible for all medical issues associated with pain complaint, including diagnoses and management of physiologic, anatomic and pathologic processes. • Comprehensive assessment of patient, focusing on careful neurological and musculoskeletal examination, review of past interventions, and consideration of potential medical, block and implantation interventions. • May be a psychiatrist, anesthesiologist, neurologist or other trained medical professional.
Nurse/case coordinator	• Role in gathering patient histories, evaluating lifestyle issues that may impact patients and their response to treatment, and monitoring medications. • Co-ordination of care (case management), education, and medical therapy.
Psychologist	• Facilitates treatment planning through comprehensive assessments of the patient's psychosocial functioning, including personality, psychopathology, social support, level of motivation, and coping resources. • Development of psychological interventions, including education on the use of self-management techniques and cognitive-behavioural therapy.
Physiotherapist	• Comprehensive assessment, that includes evaluation of strength, flexibility, and physical endurance, reflexes, sensation, neurologic indices, range of motion, and gait and postural abnormalities. • Evaluation of the work site and home. • Provides education on active physical coping skills and management of physical rehabilitation.
Occupational therapist	• Provides pre- and post- treatment evaluations targeting the patient's daily activities. Including work and recreational activities, with regard to body mechanics and energy conservation. • Oversees the progressive increase of functional activity to return the patient to the maximum normal level of activity possible. • Works as a liaison between employers and injured workers to accommodate the employee with needed job modifications.
Medical disability case manager	• Monitors patient's progress, adherence, performance and post-treatment development. • Advocates for vocational and social reactivation throughout the program. • Provides occupational planning, sequencing, and identifies socio-economic issues.
Pharmacist	• Comprehensive review of past and current pharmacological interventions including the use of herbal and homeopathic substances. • Provides education on appropriate use of pharmacological interventions.

Source: *Multidisciplinary Pain Programs for Chronic Pain: Evidence from Systematic Reviews:* Ospina, Maria; Harstall, Christa; Alberta Heritage Foundation for Medical Research; January 2003

The Calgary Chronic Pain Centre (CCPC) uses an interdisciplinary approach for the assessment and treatment of people who experience chronic pain. The Clinic is part of the Calgary Health Region and is supported by the Alberta Medical Association. Health professionals work as a team in one location. The assessment and treatment team includes specialist physicians, family physicians, psychologists, physiotherapists, occupational therapists, nurses, pharmacists and kinesiologists. Among the main characteristics of the care provision at the CCPC are a thorough on-site assessment, development of an individual care plan, and the discussion of the care plan in conference with the patient, family members, family physician and the CCPC team. The patient actively participates in the process.

All Australian capital cities have public hospital pain centres. The waiting time to access these centres is usually long (over 6 months), but most will offer "fast track" access for cancer patients and telephone advice for other pain syndromes. At a pain centre, an initial consultation is offered with a pain medicine specialist, physiotherapist, rehabilitation physician, occupational therapist, psychiatrist or psychologist, depending on which specific disciplines are represented at the centre. A multidisciplinary management plan will be developed in consultation with the patient and general practitioner. The key to success is patient involvement. There is a range of specialized therapies available in pain centres to complement a multidisciplinary management plan. However, these must not be used in isolation. While the evidence base for pain medicine is slowly growing, much of it is derived from small-scale observations and may not be readily generalizable.[32]

From the Quebec Task Force Report on Spinal Disorders, the roles of the Management team are described. "The part of the attending physician (first clinician) is crucial because of the responsibility to ascertain the pathologic nature of the spinal disorder. The attending physician must:

1.) Perform and document a standardized clinical assessment. These data are essential to proper follow-up evaluation, particularly if the clinical problem lasts longer than 4 weeks, possibly necessitating the intervention of other clinical professionals.
2.) Some of the therapeutic modalities require specialized services such as physical or occupational therapy; the attending physician should request an initial assessment and follow-up progress notes from the service. It is essential to maintain ongoing communication with allied health professionals who spend much time interacting with the patients, often on a daily basis.
3.) Certified specialists in the neuromusculoskeletal system (orthopedic surgeons, neurosurgeons, neurologists, physiatrists and rheumatologists) act as attending physicians, consultants or members of multidisciplinary evaluation teams.

[32] Ibid

Goal-oriented Management of Spinal Disorders

Time from onset	Involved professional	Goals
0-4 weeks	Treating physician	Rule out specific disease process; conservative treatment oriented toward return to work
4 weeks	Treating physician	Complete reevaluation; rule out specific disease process; pursue conservative measures oriented toward return to work
7 weeks	Treating physician	Seek consultation; act on recommendations
	Consultant	Promote functional recovery; Rule out specific disease process
3-6 months	Treating physician	Seek multidisciplinary evaluation; act on recommendations
	Multidisciplinary team	Assess psychosocial aspects of pain; assess ergonomic aspects; promote functional recovery and return to work before 6 months.

Source: *Scientific Approach to the Assessment and Management of Activity-related Spinal Disorders, A Monograph for Clinicians, Report of the Quebec Task Force on Spinal Disorder;* Spitzer, Walter, et al., Spine, Volume 12, Number 73, September 1997, page S33

Ideally, the involvement of the multidisciplinary pain clinic should be integrated with the management provided by the referring doctor or general practitioner, to whose care the patient would return for ongoing management. [33]

As part of its pain care education and training mandate, the QEII PMU could be responsible for the collection and dissemination of protocols and evidence-based practices regarding pain care.

Who should be referred to a multidisciplinary pain clinic?

Those patients who have an identified need for comprehensive, multidisciplinary assessment especially when progress is stalled or not proceeding as expected (see Table 3). Referral may also be considered when additional help in coordinated management by a multidisciplinary team is sought.

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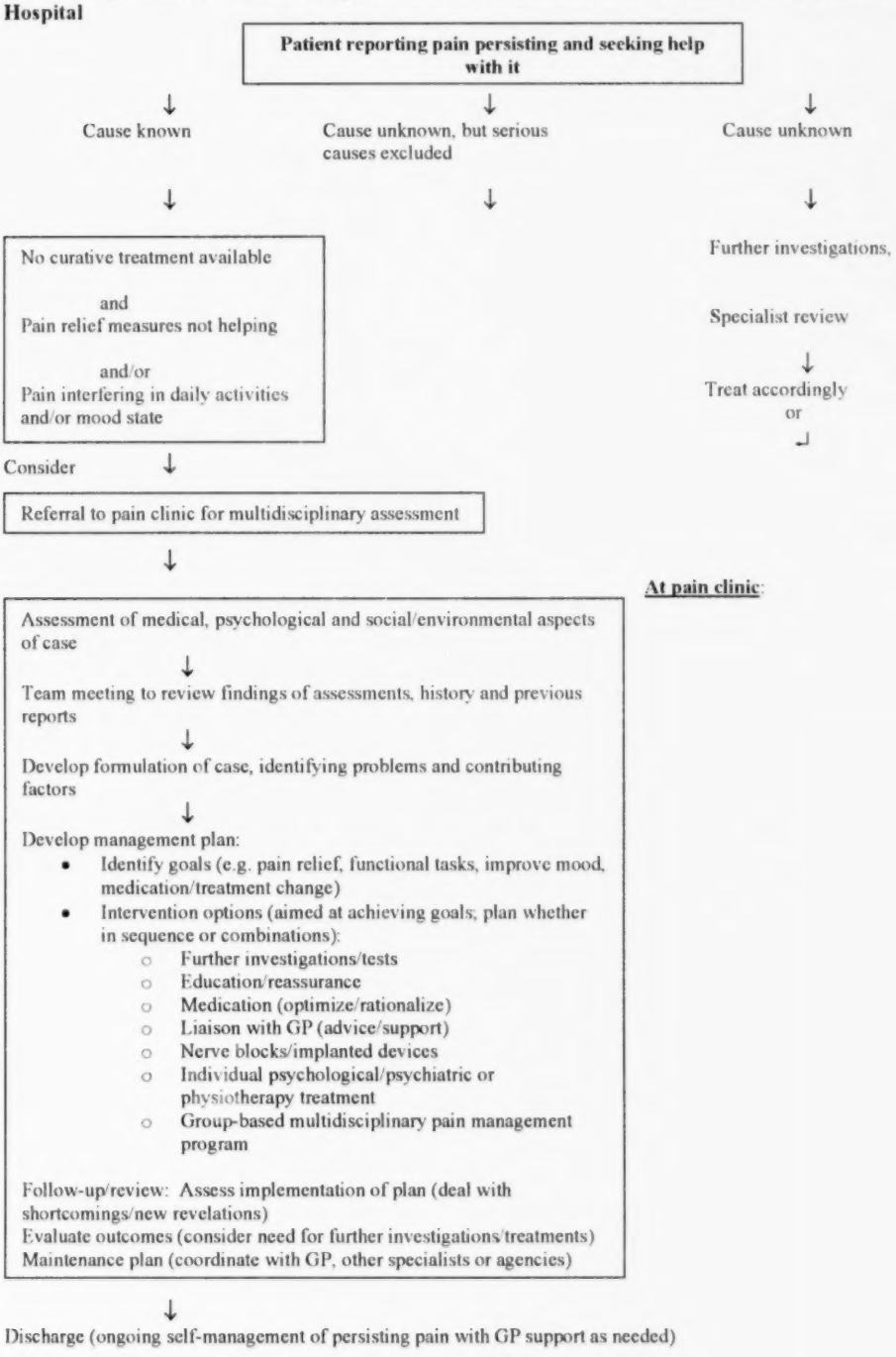
[33] *When to refer to a pain clinic*; Nicholas, Michael; Best Practice & Research Clinical Rheumatology, Vol.18, No.4, page 614

Table 3 Algorithm for referral to a pain clinic, Michael Nicholas-U. of Sydney and Royal North Shore Hospital


Patient reporting pain persisting and seeking help with it
Cause known
Cause unknown, but serious causes excluded
Cause unknown
No curative treatment available
and
Pain relief measures not helping
and/or
Pain interfering in daily activities and/or mood state
Further investigations,
Specialist review
Treat accordingly
or
Consider
Referral to pain clinic for multidisciplinary assessment
At pain clinic:
Assessment of medical, psychological and social/environmental aspects of case
Team meeting to review findings of assessments, history and previous reports
Develop formulation of case, identifying problems and contributing factors
Develop management plan:
Identify goals (e.g. pain relief, functional tasks, improve mood, medication/treatment change)
Intervention options (aimed at achieving goals; plan whether in sequence or combinations):
Further investigations/tests
Education/reassurance
Medication (optimize/rationalize)
Liaison with GP (advice/support)
Nerve blocks/implanted devices
Individual psychological/psychiatric or physiotherapy treatment
Group-based multidisciplinary pain management program
Follow-up/review: Assess implementation of plan (deal with shortcomings/new revelations)
Evaluate outcomes (consider need for further investigations/treatments)
Maintenance plan (coordinate with GP, other specialists or agencies)
Discharge (ongoing self-management of persisting pain with GP support as needed)

When to refer

A review of opinions amongst different professional groups in one U.S. study[34] on the optimum time to refer patients to a pain clinic indicated an average of around 8 months after pain onset. In this same U.S. study, by contrast, the actual average interval from onset to referral in the cases examined was closer to 38 months. That study noted that since a number of studies have indicated that treatment success in chronic pain patients is more likely if the interval from onset to referral is relatively short, the actual referral interval would seem to be far too long for good outcomes to be realizable.

A referral guide prepared by the Contemporary Concepts Review Committee of the North American Spine Society Committee suggests that multidisciplinary services typical of those available in major pain clinics, would usually be appropriate between 4 and 6 months after onset in the case of those with severe symptoms, with evidence of physical and psychosocial deterioration. There is a sound case for referring patients with persisting pain complaints to a pain clinic well before the pain might be considered to be chronic or intractable, especially for comprehensive assessment. It is also clear that patients that are being considered for referral to a pain clinic should be adequately prepared for it by the referring physician.

There is also a need for pain clinics to devise efficient discharge policies to ensure that they move patients on as soon as possible to make appointment space available for new cases.[35]

These conclusions point to the need for pain clinics to have interacting, collaborative relationships with primary care practitioners as well as with other specialists. Images of pain clinics as remote and inaccessible "last resorts" are counterproductive for all.[36]

Triage

There is some evidence that the assessment process that is integral to a pain clinic's service can lead to a more appropriately targeted treatment. [37] The Pain Management Unit (PMU) at the QEII in Halifax has introduced a "Pain Management Unit Referral Information" form, which is sent to referring physicians to fill out before sending the patient to the PMU. The Preamble highlights why the PMU needs the information, briefly covers what the patient expectations are and suggests things to try in general before referring the patient. The PMU advises that the proportion of unnecessary consults is low, but few referring physicians include all relevant information, making their work slower and less efficient. The form is a positive step in helping referring physicians know when a patient should be referred to the multidisciplinary clinic and in focusing the care on those complex patients who need the multidisciplinary treatment that the PMU offers. Education for secondary and primary care physicians across the province about the existence and use of the form will help patients move through the system more efficiently.

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[34] Ibid
[35] Ibid
[36] Ibid
[37] Ibid, page 620

SENIOR ADMINISTRATION SUPPORT FOR SECONDARY AND TERTIARY CARE

A key theme identified by the Working Group is that in order for the seamless chronic pain management system to work in Nova Scotia, there must be support from senior administration in all affected hospitals. "Treatment of chronic pain should be recognized as an inherent function of the institution where the pain centre will be established. The institution's board, medical advisory committee, and administration need to recognize that the chronic pain treatment program is a separate and defined entity within the institution and needs to be supported as such.... the team is to consist of a specific group of health professionals for whom dedicated and/or consistent resources, such as financing and space allocation, have been provided."[38]

RELATIONSHIPS WITH OTHER DEPARTMENTS, SERVICES AND AGENCIES

The Health Canada paper, *Guidelines for Establishing Standards for Chronic Pain Programs*, states that chronic pain involves multiple systems and treatment requires modalities from many disciplines. Therefore, relationships with other departments in the hospital are crucial. The treatment services that are consulted will depend upon both the qualifications of the core team and the nature of the pain service's caseload. Departments that are frequently called upon for consultation include anaesthesia, neurology, neurosurgery, occupational therapy, oncology, orthopedics, palliative care services, physiotherapy, psychiatry, physiatry, and radiotherapy. The investigative services of major importance are diagnostic imaging and neurology. Formal links should be established with the chronic pain service and investigative units.

A major treatment objective for many non-pediatric patients is rehabilitation and reintegration into the workforce, a process which is facilitated by formal liaison with workers' compensation boards, insurance boards and other third party payers. A specific member of the chronic pain team should be designated for this task.

TRANSITION OF PEDIATRIC PATIENTS TO ADULT CARE

A significant issue for pediatric pain patients in Nova Scotia is their transition to adult care, in numerous cases, after many years in pediatric care. At age 16, the pediatric chronic pain patients are supposed to be transitioned to adult care, but often this transition is not ideal, the reasons are twofold: 1.) IWK specialists are reticent to release their patients who have received regular, timely care to the PMU where they would be placed on a 5 year waiting list. 2.) A key focus in adult pain programs is rehabilitative and a return-to-work. The occupational

[38] *Guidelines for establishing standards for chronic pain programs: Report of the Subcommittee on Institutional Program Guidelines;* Health and Welfare Canada, Health Services and Promotion Branch, Ottawa; 1990, page 10

issues facing most of the adult pain population are not relevant to the population who is still school-aged.

The IWK and the Department of Health need to review the age limit for treating these chronic pain patients.

ENABLERS

STANDARDS

It is recognized by the Working Group that standards for chronic pain services can be a moving target. Nevertheless, the CCHSA included pain assessment and management in its 2005 Standards. Specific actions are suggested to meet the standard as it relates to assessment, management, monitoring, documentation and organizational responsibility. The criterion is evidence-based and includes the organization's accountability to train and update health care professionals, patients and families on pain management options and strategies.

The new reference to acute and chronic pain management can be found in Acute Care Standard 7.0, under the sub-section "Addressing Needs".

Criterion 7.4 specifically addresses the team's processes for assessing and managing the patient's pain. This criterion is relevant to all care sections of the standards where appropriate for the management of pain, from Cancer Care, Maternal/Child, Rehabilitation and Long-Term Care, to Acquired Brain Injury, Ambulatory Care and Critical Care. Processes addressed in this criterion are as follows:

- All clients receive a pain assessment on admission and routinely thereafter
- The team assesses pain using standardized clinical measures
- The team manages pain appropriately and routinely monitors the effectiveness of pain management strategies
- The team identifies and consults with pain management experts
- The team educates patients and families on pain management strategies
- The team documents and shares the results of pain management strategies
- The organization trains and updates staff on evidenced-based strategies to prevent, minimize or relieve pain

The following information is adapted from the Canadian Pain Society's *Accreditation Pain Standard: Making it Happen!* Improving pain management throughout an organization cannot be accomplished all at once. The key steps that are involved have been articulated in the Building an Institutional Commitment to Pain Management Wisconsin Resource Manual (2nd Edition)

- Develop an interprofessional workgroup
- Together analyze current pain management practices in your setting (e.g. chart audits)
- Articulate and implement a standard of practice
- Establish accountability for pain management
- Decide how to make pain a priority, visible within the organization
- Provide information about interventions (pharmacologic and non-pharmacologic) to health care practitioners, to facilitate order writing, interpretation and implementation
- Promise patients a quick response to their reports of pain

- Provide education for all health care professionals
- Continually evaluate and work to improve the quality of pain management

All clients receive a pain assessment on admission and routinely thereafter. The goal of an initial pain assessment is to characterize an individual's pain by location, intensity and if possible etiology. Every patient should have an initial pain assessment at the point of entry to care. Pain should then be reassessed routinely when there is a procedure or a condition change. An initial pain assessment is essential in determining baseline pain, previous experience with pain, including past treatments used and their success. It can also identify patient concerns or problems with medication, other illnesses or additional pain issues.

Pain assessment is a critical component of high quality patient care and is the first step in effective pain management. The main goals of pain assessments are to: (1) describe the phenomenon of pain and factors that influence it; (2) assist in the diagnosis and prediction of the need for pain management interventions; (3) evaluate the effectiveness of those interventions; and (4) provide an important indicator of the quality of patient care. However, there are multiple barriers to pain assessment in everyday practice including: inadequate assessment of data; failure to recognize the multidimensional nature of pain; inappropriate timing of assessment; difficulties interpreting the data; underutilization of pain assessment measures; inadequate documentation; difficulties following the plan of care; misbeliefs about pain in children and adults. One way to overcome these barriers in assessment is to build an "institutional commitment" to pain. "Institutionalizing" pain management practices can be achieved by incorporating basic principles of pain assessment and treatment into patterns of practice including documentation systems, policies and procedures, standards of practice, and orientation, continuing education and quality improvement programs. These approaches weave pain assessment into the very "fabric" of the organization.

Key Principles in the Assessment of Pain

- It is important to understand the distinction between pain measurement and assessment. Pain measurement generally describes the quantification of a selected aspect of the pain experience. Assessment may include the intensity, location, duration, sensory qualities, and cognitive and affective aspects of the pain experience, as well as the contextual and situational factors that may influence the measurement of pain in individuals capable of self-report
- The continuum in all settings, should select a pain assessment tool and pain intensity measure which will be used throughout the organization. It is recognized that there may be exceptions for the use of the standard tool and alternative valid tools should be available for use
- Provide care that reflects patients' right to have appropriate assessment and management of their pain
- Design pain assessment to conform to the unique developmental, communication capabilities, and cultural needs of the patient
- Use a multidimensional approach to pain assessment incorporating self-report, behavioural, physiological and contextual factors, where appropriate
- Use validated and reliable pain assessment measures

- Document pain assessment in a way that facilitates regular reassessment and follow-up (e.g., pain assessment tools used, pain score on pain flow sheet) that make pain more visible.

Choosing the Right Pain Assessment Measure

There are now several reliable, valid and clinically useful pain measures available for assessing pain in neonates, children and adults. The PMU has developed an assessment measure based on the Initiative on Methods, Measurement and Pain Assessment in Clinical Trials (IMMPACT) methodology. The PMU Questionnaires can be found in Appendix 3. Keys to successful pain screening from the VHA can be found in Appendix 4. The following guidelines can be useful in selecting pain rating scales for use in everyday practice. The measure needs to:

- Be standardized with published evidence of reliability and validity
- Be feasible to use e.g., simple to use and not long, short training time, easy to score, inexpensive and well received by patients
- Have clinical utility and give information that makes a difference for the patients
- Be practical for assessing different types of pain and versatile for use in diverse clinical settings
- Be sensitive to people's diverse conditions, ages, ethnic backgrounds, cognitive level and context in which pain is experienced
- Be available in various languages spoken in clinical setting or may be easily translated

Documentation

Putting mechanisms in place that make documentation of pain easy for clinicians helps ensure consistent documentation. Pain intensity scoring and assessment can be included on standardized tools such as: admission assessment forms; pain flow sheets for pain modalities such as intravenous or epidural patient controlled analgesia; medication administration records; and the vital signs record. Standardized documentation tools for pain assessment and intensity can be either electronic or paper depending on the organization's requirements.

Training

The Organization Trains and Updates Staff on Evidenced-based Strategies to Prevent, Minimize or Relieve Pain

Building an organizational commitment to pain management requires a sustainable infrastructure that supports staff development, training, preceptorship, mentorship, and a comprehensive approach in the use of evidence-based strategies for optimal pain management. Educational campaigns and an increase in pain related research have not been translated into practice change. Change that results in long-lasting effects requires ongoing initiatives that are multi-professional and reflect the multidimensional nature of pain.

Key Principles

- Pain assessment and management should be included in orientation programs
- Professional development opportunities on pain management should be made available to all health care professionals
- Educational programs should be designed to facilitate change in knowledge, skill, attitudes and beliefs about pain assessment and management

- If advanced techniques (such as regional analgesia, nerve blocks, etc.) are utilized, it is important for health care professionals to have the appropriate knowledge and skills to execute, and to monitor for the safety and effectiveness of these techniques
- There are many beliefs and fears about using opioids, which prevent optimal use of these agents in controlling pain. For this reason, it is important to learn the difference between physical dependence, tolerance and opioid addiction

Benefits of Staff Development Health care organizations have benefited from educational interventions. Some of these outcomes include:
- Enhanced staff knowledge related to pain management;
- Consistent use of evidence-based practice guidelines;
- Consistent utilization of pain assessment tools;
- Increased overall patient satisfaction with pain management;
- Increased overall health care professional satisfaction in managing pain

Staff Development

Including pain assessment and management in the orientation of all new health care professionals, emphasizes its importance as a quality indicator. And secondly, it provides an opportunity to assess knowledge and attitudes amongst disciplines. Orientation sessions can provide a forum for further learning and the opportunity to identify "pain champions". Assessing current practice whether for the entire organization or individual departments/units can be an invaluable tool in understanding current practice, knowledge level, identifying gaps in service provision and producing ideas for future initiatives. Other strategies and issues to consider include:
- An interprofessional working group that examines issues related to pain management
- Specific policies and guidelines
- Effective assessment and documentation tools
- Accountability for pain management is clearly defined
- Adverse consequences of untreated or poorly managed pain
- Specific needs for specific populations
- Information related to both pharmacological and non-pharmacological therapies available
- Barriers to practice change
- Information on the appropriate and safe use of opioids
- Patient and family advocacy
- Methods of ongoing educational opportunities
- Mechanism for retrieving and utilizing evidence-based materials
- Process for ongoing evaluation of outcomes

Preceptorship/Mentorship

Preceptorship/mentorship programs in pain management are now offered by provincial nursing agencies in which a preceptor is matched with a mentor (pain expert) designed to enhance the knowledge, skills, and abilities of the preceptor (i.e. Registered Nurses Association of Ontario's Advanced Clinical Fellowships). Many organizations have developed preceptor and resource programs that reflect the organization's goals.

These programs specifically designed for clinicians can last a few days or longer depending on the needs of the team. Typically, these programs include observation of practice, attending lectures, observation of procedures, group discussion, and interdisciplinary rounds.

Sustained Practice Change

Improving pain management practices within any organization is an on-going process that requires checks and balances. Staff development is a key component of that process. Evaluation of staff development initiatives both from the health care professional perspective and the patient's is valuable in understanding if sustained practice change has taken place as a result of the initiative.

The concept of sustained practice change is complex. The following items require special consideration if practice change is to continue beyond the limited time following a simple educational opportunity.

- Identification of barriers to practice change – i.e. legislative, system-level, resources, myths, knowledge and skill
- Links to experts and resources
- Inclusion of pain management within the core curriculum of all undergraduate health care professional education

Evaluation and Changing Current Practice

Current practice must be assessed in order to know how the organization is practicing and where improvements/education is needed. [39]

EDUCATION

Gaps in pain knowledge have been reported for almost two decades for a variety of health professional groups including Medicine, Pharmacy, Nursing, Occupational Therapy and Physiotherapy.[40] Pain education for health professionals at all levels has been repeatedly identified as an important step to changing ineffective pain management practices. Yet despite these deficiencies, educational programs, especially for undergraduates, have included minimal or no pain content. There is a consensus that professional education is a basic component for effective and efficient delivery of pain management. Jurisdictions such as France and Australia that have made pain management a priority, and have implemented educational programs for their health professionals. In France, physicians learn pain management strategies in medical school through a mandatory module on pain management and palliative care. An inter-university diploma called "Training in Pain Management for Health Professionals", was created to harmonize pain education initiatives for health care professionals. Also, hospital-based continuing education has been emphasized.

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[39] *Accreditation Pain Standard: Making it Happen!;* The Canadian Pain Society

[40] *An integrated undergraduate pain curriculum, based on IASP curricula, for six Health Science Faculties;* Watt-Watson, Judy, et al., Pain 110, 2004, page 140.

In Australia, the Pain Management and Research Institute of the University of Sydney at the Royal North Shore Hospital offers education for individuals studying to be pain specialists. Many pain centres in Australia run continuing education programs for GP's which fit with the mandate for multidisciplinary pain clinics to maintain close communication with each patient's GP. [41]

In the U.S., the Veterans' Health Administration (VHA) has set up advanced clinical training in pain management. Specific residency training in pain management which incorporates clinical research is offered within anaesthesiology, psychiatry, physiatry, and neurology specialties. The VHA serves as a training site for nurses, psychologists, physical medicine and rehabilitation therapists and medical students.

The Canadian Agency for Drugs and Technologies in Health (CADTH) funded a one-year project through the Alberta Heritage Foundation for Medical Research, called the HTA Ambassador Program. This program employs clinical leaders to communicate research evidence on non-malignant chronic pain management to health-care providers through workshops held in Alberta's health regions.[42] The aim is to educate health care providers and encourage clinicians to incorporate evidence into their practice when working with patients with chronic pain. Preliminary results from an independent evaluation indicate that care provider awareness of best evidence increased through the workshops, the evidence summaries were considered excellent communication tools, and the program had a positive impact on patient knowledge.

The University of Toronto Centre for the Study of Pain (UTCSP) tackled the education issue by having its Education Advisory Committee provide one integrated course to all undergraduate students in the Health Science Faculties. The aim was to ensure a common basic understanding of pain assessment and management principles upon which to build profession-specific pain knowledge within an interprofessional context. They developed, implemented and evaluated a 20 hour interfaculty undergraduate pain education program for 540 students, which was based on the curriculum guidelines published by the International Association for the Study of Pain. The course was developed by the UTCSP Education Advisory Committee made up of faculty from Dentistry, Medicine, Nursing, Pharmacy, Physiotherapy and Occupational Therapy. Content priorities were chosen based on the minimal requirements to manage pain as perceived by each profession. Evaluation results showed that the students' overall ratings of the curriculum indicated that the aim of integrating profession-specific learning goals concerning pain into an interfaculty curriculum was achieved. Statistically significant changes were demonstrated in students' pain knowledge and beliefs. Some of the students' qualitative responses were " the interprofessional approach

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[41] *Management of Chronic Non-Cancer Pain: Organization of Health Services;* Dobkin, Patricia, et al., AETMIS, Quebec, May 2006, page 24

[42] Ibid, page 25

helped us to learn about differences in roles", "helped us to know when to refer for different therapies", etc. [43]

Nova Scotia has introduced an educational initiative for chronic pain through the N.S. Prescription Monitoring Program. The Drug Evaluation Alliance of Nova Scotia (DEANS) and partners from Dalhousie and the Cape Breton District Health Authority developed a needs-based and evidence-based educational intervention on the management of chronic non-cancer pain for doctors, dentists, and pharmacists. The objectives are to increase self-efficacy of physicians, dentists and pharmacists in managing patients with chronic non-cancer pain, improve communication among primary care providers, and encourage prescribing of medications for the management of chronic non-cancer pain in accordance with the messages developed for the educational intervention.

The Working Group conducted a survey of all undergraduate and post-graduate health programs in the province to determine if there are any pain management course requirements. The Bachelor of Science in Nursing programs in N.S. (Dalhousie and St. F.X) offer pain management content in each of the four years of the program. For medicine, all the opportunities in chronic pain management are embedded in individual residency training programs. The programs that have specific sessions on chronic pain management include anaesthesia, medical oncology, palliative medicine, rheumatology, psychiatry and physical medicine & rehabilitation. All other health undergraduate and post-graduate programs do not have dedicated courses in pain management.

Dalhousie Continuing Medical Education has other programs that can include sessions on chronic pain such as:

- Three day conferences (refreshers) held in November and February every year
- Community Hospital Program in which a specialist visits physicians in their communities to provide a small-group educational session
- Videoconferenced CE Program that provides a series of one-hour videoconferences to physicians throughout Nova Scotia

Dalhousie CME advises that these programs are usually designed for family physicians but all health care professionals may attend.

Dalhousie CME also works with clinical departments to provide clinical traineeships to physicians with an interest in a particular topic. For example, a physician with an interest in chronic pain could arrange to have some in-depth education if suitable arrangements could be made with the PMU.

The PMU in conjunction with Dalhousie School of Medicine plans to develop a training module and clinical traineeship for family physicians interested in becoming more involved in

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[43] *An integrated undergraduate pain curriculum, based on IASP curricula, for six Health Science Faculties;* Watt-Watson, Judy, et al., Pain 110, 2004, page 146.

the care of patients with chronic pain. The PMU has offered to teach physicians from across the province on pain management, so that these physicians can then be the local resource in their area. The DHA has to provide the supports that these individuals need to offer local pain service.

HUMAN RESOURCES AND REMUNERATION

Pain assessment and management skills and knowledge are essential for all health care practitioners. Commitments need to be made to support the education, hiring and training of all health professionals in a chronic pain system in Nova Scotia.

The remuneration that family physicians receive to see patients with chronic pain does not match the long length of time they have to spend with these patients. The PMU has requested that Doctors Nova Scotia approve two new fees for pain management by family physicians. The two are: chronic pain consultation and chronic pain management office support. Chronic pain management consultation can be claimed by designated physicians (general practitioners or specialists) with recognized expertise in the management of chronic pain. One of the requirements of this code is to develop a proposed management plan for the patient. Chronic pain management office support is a visit for the purpose of providing pain management, emotional support and counseling to individuals who suffer with chronic pain. The decision from Doctors Nova Scotia is pending.

Currently, all physician specialties identified as part of or potentially part of a tertiary Chronic Pain Management team are remunerated on an Alternative Funding Plan basis (the IWK and QEII are AFP designated facilities). The Working Group concluded that an alternate payment model to fee-for-service is more appropriate in a multi-disciplinary practice in tertiary care or an enhanced secondary service. A blended model would be a possibility.

WHAT WE KNOW AND WHAT CAN BE DONE

Chronic pain varies greatly in type, intensity, frequency and prognosis, therefore, patients are found at all levels of the health care system and are treated by many different health professionals. Services offered to chronic pain patients in Nova Scotia are fragmented and waiting times are long. Training in chronic pain diagnosis, treatment and follow-up is inadequate for various health professionals in the province. Medical schools and allied health professional training programs typically devote little time to this topic despite the fact that pain is one of the main symptoms that motivates a patient to seek health services.

The Health Canada paper, *Guidelines for Establishing Standards for Chronic Pain Programs* written in 1990, illustrated that the need for standardization across programs had been recognized for some time. It provided guidelines for the assessment of chronic pain, described programs (staffing, facilities and equipment) and discussed community and professional liaison services, as well as needs for treatment outcome and quality assurance.[44]

The Quebec Health Technology Assessment Agency report talks in terms of the "building blocks" of systems that can be useful for the reorganization of structures and processes for patients with chronic pain in Nova Scotia. These include "professional know-how, hierarchy of services, assessment of patient outcomes and quality of care, and the patient as a partner in health care." [45]

Professional "know-how"

In France, a series of teaching documents have been placed on the Internet to enable health care workers to extend their knowledge of the management of pain in specific areas (e.g., back pain). Professional education needs to begin with students in training and continue through education for all who administer therapies to chronic pain patients. An educational emphasis on timely diagnosis and initiation of appropriate treatment in order to prevent chronicity, as well as recognition of risk factors for the development of chronic pain, is likely to be a beneficial approach.

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[44] *Management of Chronic Non-Cancer Pain: Organization of Health Services;* Dobkin, Patricia, et al., AETMIS, Quebec, May 2006, page 31

[45] *Management of Chronic Non-Cancer Pain: Organization of Health Services;* Dobkin, Patricia, et al., AETMIS, Quebec, May 2006, page vii

Clinical Practice Guidelines

Clinical practice guidelines exist for chronic pain; these are aimed at specific health professionals (e.g., physicians and nurses), types of services (e.g., inpatient, pain clinics), types of conditions (e.g., back pain) or target particular interventions (e.g., opioids). Yet, whether or not they are implemented is in general, unknown, and whether their use makes a difference for chronic pain patient outcomes appears to be rarely studied in a systematic manner.[46]

Five Canadian clinical practice guidelines (CPG's) on the management of chronic pain were developed by the Colleges of Physicians and Surgeons of Alberta, Manitoba, New Brunswick, Ontario and the Canadian Pain Mechanisms, Diagnoses and Management Consortium. The Colleges of Physicians and Surgeons consider the most appropriate therapeutic paradigm for most chronic pain patients should follow a rehabilitative model rather than an acute medical model. They also agree that the goals of any intervention should be functional restoration (including physical, psychological and social function), symptomatic relief and comfort improvement. Several relevant outcomes in these guidelines include: pain reduction, limiting adverse effects, and reduction of pain therapy as well as quality of life improvement, optimal utilization and cost of services. All of the clinical practice guidelines reviewed by the Alberta Heritage Foundation for Medical Research for multidisciplinary pain services, recommended the use of a multidisciplinary team approach that includes physicians, psychologists, physiotherapists and occupational therapists.

However, it is not clear from the guidelines, when and how multidisciplinary clinics should be provided. Differences in patient selection, types of interventions included in the programs and the degree of treatment intensity needed to produce a certain level of improvement are factors that are not clearly described in the CPG's.[47]

A list of clinical practice guidelines can be found in Appendix 5.

Hierarchy of Services

The majority of chronic pain patients are treated by family doctors who are responsible for referral of patients with pain that may be associated with a serious disease requiring specialist care or referral to pain specialists, if necessary. Several studies conducted at the primary care level, point to the potential for sub-optimal outcomes for many chronic pain patients. Evidence indicates the need for general practitioners to have direct links to allied health professionals for patients who are at risk for becoming disabled, yet the strength of these connections vary. In terms of specialist care, various types of physicians may examine and/or treat chronic pain patients such as anesthesiologists, rheumatologists, orthopedic surgeons, physiatrists, neurosurgeons and neurologists.

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[46] *Management of Chronic Non-Cancer Pain: Organization of Health Services;* Dobkin, Patricia, et al., AETMIS, Quebec, May 2006, page vii.

[47] *Multidisciplinary Pain Programs for Chronic Pain: Evidence from Systematic Reviews:* Ospina, Maria; Harstall, Christa; Alberta Heritage Foundation for Medical Research; January 2003

A general rehabilitative approach that offers care from various disciplines is considered to be the gold standard for patients with chronic pain that persists despite less intensive treatment, and is recommended by the International Association for the Study of Pain (IASP) for many patients. An IASP taskforce produced a document with guidelines for pain treatment facilities, including multidisciplinary pain centres and clinics, in order to inform the organization of such entities and for use in standard-setting and accreditation globally. This taskforce states that a multidisciplinary approach to diagnosis and treatment is the preferred method of delivering health care to patients with chronic pain of any etiology. Not every patient referred to a pain treatment facility is in need of multidisciplinary diagnosis or treatment, but the facility should have those resources available when they are appropriate.[48]

Patients may need to move from one level of service to another and back over the course of time. The hierarchical model of services is conceptually linked to the process of "stepped care" in which patients progressively receive more complex specialized and often costly interventions according to need. There is a need for both the use of evidence-based guidelines for evaluation and treatment at each stage of care and coordination between different levels of service.

Ideally, referral protocols are put in place to coordinate the movement of patients through the care levels.

Assessment of Patient Outcomes and Quality of Care

"Turk and colleagues have proposed key domains that should be considered to determine if pain treatment is effective (in the context of clinical trials); these include pain measures (e.g., pain intensity, pain relief), emotional functioning (e.g., depression, anxiety), pain-related physical functioning, return to work, quality of life, and patient satisfaction with pain management." [49] At the VHA, a "Pain Outcomes Toolkit" is used to collect data which are linked to performance improvement as part of an overall vision of accountability. The VHA system has incorporated quality control measures in all pain management services, mandating documentation of pain assessment, pain care plans, and patient education.

Ospina and Harstall's 2003 Report for the Alberta Heritage Foundation for Medical Research on Multidisciplinary Pain Programs, states that there is a need for research on the various aspects of the multidisciplinary approach. Because programs can vary in the specific techniques used to manage pain, little is known about which treatment or set of treatments is responsible for the observed improvements or which kind of patients do best under a particular form of individualized treatment plan. Maintaining and monitoring outcome data systems should be a top priority for any multidisciplinary program. This was echoed by Dr. Tom Evans

[48] *Management of Chronic Non-Cancer Pain: Organization of Health Services;* Dobkin, Patricia, et al., AETMIS, Quebec, May 2006, page 21
[49] Ibid

of the Atlantic Pain Clinic in his May 8th presentation on outcomes, to the Chronic Pain Working Group.

The Patient as a Partner

Similar to other patients living with other chronic illnesses, those with persistent pain need to be key players in their own health care. They must take responsibility for the aspects of treatment that are under their control, such as adherence to medications and lifestyle changes. In the VHA system, one objective of its national pain management strategy is to include patients and families as active participants. Some of the VHA's goals of pain management programs are:

- To improve patients' understanding of their situation
- To improve their level of physical functioning
- To modify their perceived level of pain and suffering
- To provide coping strategies for dealing with their disability and distress
- To promote self-management
- To reduce or modify their future use of healthcare services"[50]

SUMMARY

1.) Primary care structures and services need to provide timely diagnosis and treatment of chronic pain, where possible (for example, via medications, rehabilitative and physical medicine, behavioural medicine, as needed). Specialized services and multidisciplinary pain clinics are intended to serve more complex cases that persist despite previous treatments.

2.) An interdisciplinary approach is crucial for management of chronic pain at all levels of the health care system. Canadian clinical practice guidelines support the interdisciplinary model for management of chronic pain patients.

3.) Services need to be integrated and coordinated so that different types of health professionals (from various disciplines and levels of care) can be involved in seamless delivery of care.

4.) Care pathways and discharge protocols need to be employed to ensure continuity of care.

5.) Education for physicians and allied health professionals at all levels of the health care system is essential to optimize treatment of patients with chronic pain.

6.) Chronic pain patients need to be viewed as part of the solution in that they required education about pain, including self-management strategies.

7.) Chronic pain outcomes need to be assessed systematically to ensure quality of care.

[50] *The Management of Persistent Pain*, Goucke C.R; Medical Journal of Australia; May 5, 2003, page 447

PRINCIPLES FOR MOVING FORWARD

Assessment and Referral
All patients benefit from timely and effective assessment and treatment of pain by their primary care providers. When treatment is not effective, early access to appropriate specialists can result in improved outcomes. It is appropriate to justify the referral of patients in pain and the utilization of treatment methods used for such patients. Therefore, reasonable criteria for referral and utilization should be developed, distributed to providers and used in this process.

Education of Primary Care Providers
Due to limited exposure to pain management during their training, knowledge regarding the treatment of patients with chronic pain is lacking in Nova Scotia. Primary care providers can often be unclear as to when patients with chronic pain may benefit from referral for consultation and treatment. Information and management activities that help primary care providers make these determinations needs to be provided. Primary care providers will be knowledgeable and skilled in the management of pain.

Specialized Services
Specialized practitioners and teams will be available to support primary and frontline providers in all care settings to maximize care for patients with complex pain problems.

Multidisciplinary Care
Multidisciplinary care will provide optimal care for people with pain problems.

Access
Patients will have timely, equitable access to appropriate care for pain.

Integration
Pain services will be coordinated and seamless throughout the continuum--home, primary care, secondary care and tertiary care settings.

Management of Chronic Pain
Province-wide policies and strategies need to be developed that can facilitate the following:

1.) Identification of patients with chronic pain conditions
2.) Appropriate referral of such patients to specialized providers
3.) Education and assistance to primary care providers in accomplishing these objectives
4.) Development of disease state management programs for chronic pain, similar to those designed for other chronic diseases. Such programs should:

a. Provide pathways and guidelines that encourage the appropriate utilization of pain specialists and other resources.
b. Result in the documented effectiveness of the chosen treatment strategies.

Quality and Outcomes

It is appropriate to require documentation of quality of care and outcomes that allow primary providers to make appropriate, evidence-based decisions on referrals to pain specialists and treatment programs. These should minimally include evidence of outcomes, wherever appropriate, for:

1.) physical parameters
2.) functional status
3.) healthcare utilization
4.) occupational/disability related measures
5.) patient satisfaction

There will be dedicated resources for continuous evaluation and planning for service delivery. Evaluation will include both patient outcomes and health care utilization.

Sustainability

A sustainable pain management service is achieved through the dedication of appropriate utilization of adequate resources.

RECOMMENDATIONS

An integrated approach to pain management in Nova Scotia is needed. This approach must cover human resources, education and communication issues. A hierarchical and integrated model, incorporating the principles of stepped care and employing an interdisciplinary approach at all levels of care, should be used for the delivery of services for chronic pain patients. Educational strategies for health care professionals should be developed and supported, in order to promote evidence-based practice in assessment, diagnosis, treatment, rehabilitation and management. Monitoring chronic pain services and other quality assurance mechanisms should be included. There is a need to formally connect the various parts of the programs being offered to ensure the establishment of a true continuum of services. A Provincial Implementation Committee with representation from across the province, should be set up in September of 2006 to put this Action Plan into place. The Committee should seek funding to move beyond the first two years covered by the Chronic Pain Model for Nova Scotia found in the next section of this Action Plan.

These are the recommendations of the Nova Scotia Chronic Pain Working Group, the recommendations are not in order of importance:

1. **A Chronic Pain Model for Nova Scotia**
   Following the broad principles outlined in the Recommendation preamble above, a Chronic Pain Model for Nova Scotia has been scoped out and can be found on page 46.

2. **Prevention**
   The Implementation Committee should liaise with the Department of Health Promotion and Protection on efforts to prevent chronic pain.

3. **Self management**
   - **a)** The Implementation Coordinator (noted in the Chronic Pain Plan for Nova Scotia on page 47) should liaise with the Department of Health on its work to develop a cross-disease program for self-management based on best practice and evidence.
   - **b)** Existing Nova Scotia self-management initiatives should be considered for their applicability across the rest of the province. Links with the Arthritis Society self-management program should be strengthened.

4. **Triage**
   The development and implementation of triage processes expedite access for patients to the most appropriate services to meet their needs. Specifically, resources should be provided to enable the PMU to educate secondary and

primary care physicians across the province about the existence and use of its Pain Management Unit Referral Information form, and the introduction of triage tools in the primary and secondary levels of care can help patients move through the system more efficiently.

5. **Senior Administration Support**
The proposed model can only be successful if there is senior administration support in all Districts and at the IWK. Senior administration must recognize that the chronic-pain treatment program is a separate and defined entity within the system and needs to be supported as such.

6. **Telehealth**
The development of a consultation service for community physicians caring for patients with chronic pain should be explored.

7. **Communication**
Coordination of patient information through a seamless system is essential. Information should be relayed back to the referring physician in a general clinic or in primary care in a timely fashion, for patients treated in a multidisciplinary clinic. In the U.S. VHA system for example, once a patient has completed treatment at the multidisciplinary clinic, a progress summary letter with discharge status and recommendations for follow-up care is sent to the referring physician.

8. **Common wait list for N.S.** – Current wait lists in Nova Scotia for pain management need to be analyzed. A provincial information system needs to be established concerning the number of patients seen, care provided and treatment outcomes. A common wait list using current and credible standards for pain services in the province, can increase efficiency in the system and reduce duplication and reduce wait times. Department of Health wait time minimum data set suggested requirements for chronic pain services can be found in Appendix 6.

9. **Post Secondary Education**— Pain assessment and management skills and knowledge are essential for all health care practitioners. To address the current inadequacy of training programs in Nova Scotia, the following is recommended:
    - **a.** Establish liaison with curriculum committees in all appropriate faculties to incorporate a pain curriculum in their undergraduate and postgraduate training programs.
    - **b.** Adapt a multidisciplinary curriculum into programs within the faculties with an emphasis on a team approach to care.
    - **c.** Explore strategies to advocate for resources for fellowships in various formats for physicians, medical students and other disciplines.
    - **d.** Family medicine at Dalhousie University should have post-graduate medical training in chronic pain management.

10. **Education and Training**– as noted in the Issues section of this paper, training and education is an area that can help with reducing wait times, to that end, the province should endeavour to enhance the capacity of primary health care practitioners in urban and rural locations to care for people with pain with specific strategies to include:
    a. Offer assistance (promotion, financial, etc.) to expand CE and other health professional training modules in pain management in N.S.
    b. Expand the development and support for family physicians with special interest and skills in chronic pain to care for patients with complex pain problems, through Dalhousie's CE office and the PMU. Physicians could obtain a certificate in pain management. DHA's then must offer necessary supports to these physicians to do pain services, when they return to their local area.
    c. Focus should be placed on pain management continuing education for nurses and allied health professionals. The Dalhousie CE office has offered to assist with this.
    d. Consideration should be given to modeling the Alberta Ambassador program for the delivery of evidence-based information to all pain health practitioners.

11. **Remuneration**— The Implementation Committee should develop an alternate payment model for primary and secondary level physicians delivering chronic pain services, as in the case of psychotherapy services described in the MSI Physician Manual, paragraph 8.6, page 27.

12. **Navigation**—Develop and implement strategies to assist patients and care providers to navigate the system to access the most appropriate pain services and ensure the coordination and linkages between the services identified. Possible examples which may achieve this include:
    a. The development of algorithms and pathways to guide care providers to provide the most appropriate service to patients based on their symptoms, setting and other factors.
    b. Development of a website to provide pain management education for patients and how they can best navigate the system.

13. **Best Practices**—Develop, implement and evaluate guidelines for best practices for common chronic pain problems such as low back pain, arthritis and headache.

14. **Promote and Support Research**—The Implementation Committee recognizes the importance of research that advances our understanding of the broad treatment of pain.

15. **Transition**

a. The Implementation Committee should examine barriers to transition of care such as the facilitation of transition of patients back to their family physician and other physicians. Suggestions to achieve this include setting reasonable goals and expectations for patients through the family physician at the onset of chronic pain and the implementation of a periodic assessment review plan.

b. Transition of youth from IWK to adult pain clinics needs to be addressed. The IWK and the Department of Health need to review the age limit for treating these chronic pain patients.

16. **Liaison with N.S. Workers' Compensation Board**
The Implementation Committee should look for opportunities to maximize outcomes with the Workers' Compensation Board of Nova Scotia for non-pediatric chronic pain patients.

17. **Evaluation**– Strategies and Programs in the province need to be evaluated using common measurement to determine program effectiveness.

It is hoped that if these recommendations are implemented, the key success factors identified by the Working Group as:

- Access to education
- Easy, two-way access and communication
- Treatment close to home
- Achieving best outcomes
- Monitoring and evaluating
- System that is fast and cost-effective
- Supply/Demand balance
- Return to productive life

will be met.

THE CHRONIC PAIN MODEL FOR NOVA SCOTIA

Based on an initial commitment of $1 million per year for two years, the following model covers years 1 and 2. Years 1 and 2 will be considered a pilot phase. It is recognized that any surplus funds in the first year will be used to support education. The assumption with this model is that enhanced community services should be available in all districts.

1. Self Management

- Improve access to and support for self-management services for chronic pain.

Commitment: $50,000 (Annual)

2. Primary Care Education

- Increase education for primary care providers on pain management in:
  - Undergraduate and graduate programs
  - Continuing education

Commitment: $50,000 (Annual)

3. Enhanced Community Service (pilot for 3 Districts)

- Improve access to pain services in Nova Scotia
- Ambulatory Care Clinic – one day per week, Family Physician; run clinic with additional resources for 1 day of PT/OT, 1 day of RN and 1 day clerical support.
- Focus on pain management with use of care guidelines
- Priority provided to Districts without regional services

Commitment: $60,000 x 3 = $180,000

4. Regional Secondary Services (4 Centres) *More detail can be found in Appendix 7.

- Dedicated clinic space and staff – specialists run service providing pain management and nerve blocks based on a minimum 2 day per week service.
- Multi-disciplinary program with dedicated resources including PT, OT, RN, psychologist and clerical staff (see staff table on page 21) consistent with volumes and commitment of specialists.
  - Distribution of Centres:
    - Cape Breton

- Dartmouth/Hants
- Northern Shared Service Area*
- Western Shared Service Area*

*Location to be determined following response to request for interest from District Health Authorities. The expectation is that this DHA request for proposal process will lead to a true provincial service for chronic pain, not a continuation of the current situation of service concentrated primarily in two areas of the province—Halifax and Sydney.

Commitment: $140,000 x 4= $560,000

5. Tertiary Service

- Respond to referrals from regional services and offer specialized services for residents of Nova Scotia – share secondary level service with Dartmouth/Hants for residents of Capital Health District.
- Respond to needs of children through IWK.
- Assist in staff development, research, education and provincial standards.

Commitment: $160,000

6. Provincial Implementation Committee and Implementation Coordinator

- Establish a Provincial Implementation Committee to oversee implementation of the plan and evaluate outcomes.
- Recruit a two year/term coordinator to assist in implementation, to develop consistent reporting systems and to evaluate the impact of the initiative.

Commitment: To be funded by the Department of Health

APPENDIX 1

Members of the Nova Scotia Chronic Pain Working Group

Chair: Mr. John Malcom, CEO
Capital Breton District Health Authority

Ms. Isabelle Zwerling, Manager-- Rehabilitation Services
South Shore District Health Authority

Ms. Melanie Mooney, Stroke Care Coordinator
South West Nova District Health Authority

Dr. Jane Brooks, Family Practice Physician and Chief of Staff--Soldiers Memorial Hospital
Annapolis Valley District Health Authority

Dr. David Smith, Anesthetist, Colchester Regional Hospital
Colchester East Hants Health Authority

Dr. Ian Sutherland, Rheumatologist, District Chief-of-Staff
Cumberland Health Authority

Ms. Jane Cameron, Director of Rehabilitation Services
Pictou County Health Authority

Dr. Mike McKenzie, General Practitioner, St. Martha's Regional Hospital
Guysborough Antigonish Strait Health Authority

Dr. Rob Macneill, Director, Chronic Pain Management Services
Cape Breton District Health Authority

Dr. Mike Murphy, Head of Anesthesia
Capital District Health Authority

Ms. Heather Francis, Health Services Director
Capital District Health Authority

Dr. Ian Beauprie, Anesthesiologist
Pain Management Unit
Capital District Health Authority

Dr. Alison Kelland, Anesthesiologist
Hants Community Hospital
Capital District Health Authority

Dr. G. Allen Finley, Medical Director, Pediatric Pain Management
IWK Health Centre

Mr. Abram J. Almeda, Director-- Acute & Tertiary Care
Department of Health

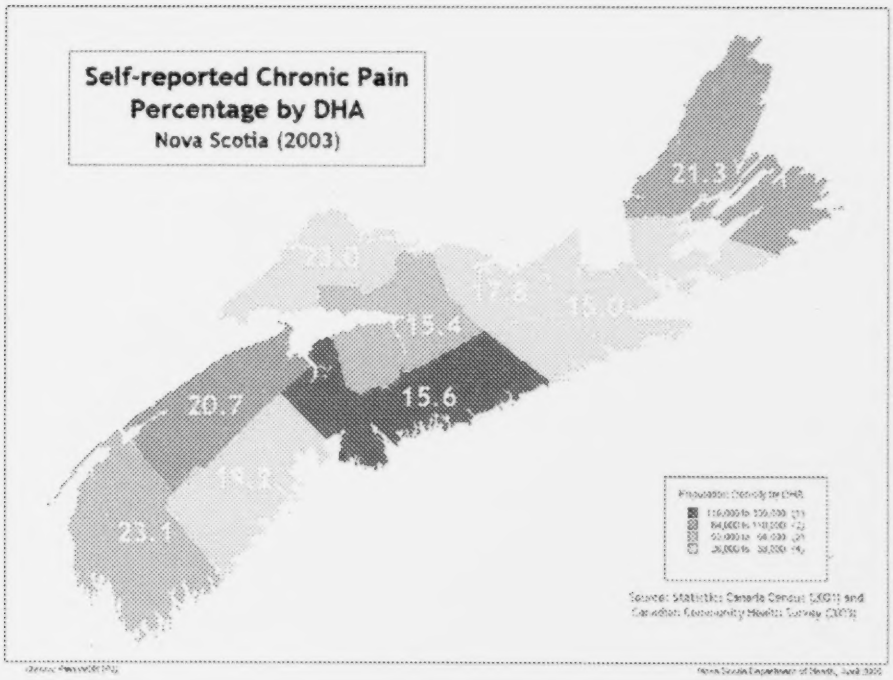
Ms. Lynn Edwards, Director, Acute & Tertiary Care
Department of Health

Mr. Ian Bower, Manager-- Physician Resources
Department of Health

Mr. Faizal Nanji, Manager-- Primary Health Care
Department of Health

Ms. Victoria Goldring, Consultant to the N.S. Chronic Pain Working Group

APPENDIX 2
Self-Reported Pain by DHA



APPENDIX 3

Pain Management Questionnaire
Baseline measures

Date today:_____

Pain Management Unit Pain Evaluation Questionnaire

You have been referred to the Pain Management Unit by your doctor. In order to help you better we would like to know more about you and your pain. When you have completed the questionnaire please send it back to the address on the last page.

About you:

Name:_____ Date of Birth:_____

Address:_____

_____ Sex: F M

_____ Occupation:_____

Phone contact:_____ Marital status:

Family physician:_____ Single____

Phone for your doctor;_____ Married or cohabiting___

Children (how many)_____

Educational level:

Didn't finish high school finished high school

Post-secondary: college trade school university

Work /employment status (circle one):

Disabled from work modified duties work part time work full time

Retired volunteering unemployed, looking for work

About your pain:

1. When did your pain first start?_____

2. How did the pain begin? (Check as many as apply)

☐ An accident at work ☐ After surgery

☐ A motor vehicle accident ☐ other_____

3. Where is your pain located?

_____

Baseline measures

4a. Please rate the average severity of your pain as it is on most days (circle one number):

0	1	2	3	4	5	6	7	8	9	10

no pain — pain as bad as you can imagine

4b. Circle the word that best describes your pain now:

No pain mild discomforting distressing horrible excruciating

5. Circle one number that describes how your pain has interfered with your:

A. General Activity:

0	1	2	3	4	5	6	7	8	9	10

does not interfere — completely interferes

B. Walking ability

0	1	2	3	4	5	6	7	8	9	10

C. Ability to do wage earning work

0	1	2	3	4	5	6	7	8	9	10

D. Ability to do housework or yard work around the home

0	1	2	3	4	5	6	7	8	9	10

E. Relationships with other people

0	1	2	3	4	5	6	7	8	9	10

F. Sleep

0	1	2	3	4	5	6	7	8	9	10

G. Mood

0	1	2	3	4	5	6	7	8	9	10

H. Enjoyment of life

0	1	2	3	4	5	6	7	8	9	10

Pain Management Questionnaire
Follow-up measures

1a. Please rate the average severity of your pain as it is on most days (circle one number):

0	1	2	3	4	5	6	7	8	9	10

no pain — pain as bad as you can imagine

1b. Circle the word that best describes your pain now:

No pain mild discomforting distressing horrible excruciating

2. Circle one number that describes how your pain has interfered with your:

A. General Activity:

0	1	2	3	4	5	6	7	8	9	10

does not interfere — completely interferes

B. Walking ability

0	1	2	3	4	5	6	7	8	9	10

C. Ability to do wage earning work

0	1	2	3	4	5	6	7	8	9	10

D. Ability to do housework or yard work around the home

0	1	2	3	4	5	6	7	8	9	10

E. Relationships with other people

0	1	2	3	4	5	6	7	8	9	10

F. Sleep

0	1	2	3	4	5	6	7	8	9	10

G. Mood

0	1	2	3	4	5	6	7	8	9	10

H. Enjoyment of life

0	1	2	3	4	5	6	7	8	9	10

Outcome Measures

3. Are you satisfied with the treatment you have received at the Pain Management Unit?

-3	-2	-1	0	+1	+2	+3

Very unsatisfied completely satisfied

4. How has your treatment affected your ability to function or do things?:

-3	-2	-1	0	+1	+2	+3

very much worse no change very much improved

5. Have you had any side effects or negative effects from your treatment? (please list or explain)

_____

_____

6. How would you grade your overall improvement , if any, with treatment from the Pain Management Unit (circle 1 number)?

-3	-2	-1	0	+1	+2	+3

very much worse no change very much improved

7. What is your employment status?

Disabled from work	modified duties	work part time	work full time
Retired	volunteering	unemployed, looking for work	

8.Comments:_____

_____

_____

APPENDIX 4

From the U.S. Department of Veterans Affairs

Keys to Successful Pain Screening

Successful pain screening relies on practitioners' consistent commitment to several core concepts:

- The patient's self-report of pain is the single most reliable indicator of pain.
- Observations of behavior and vital signs should not be used instead of self-report unless the patient is unable to communicate.
- Pain can occur when there is no physiological cause, and it is just as real to the patient.

The Numeric Rating Scale (NRS)

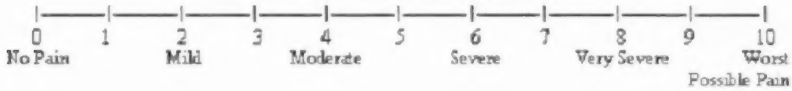
There is no pain thermometer. Measurements of pain must rely on patients' self-reports or the inferences we can make based on their behaviors. Screening for pain intensity is an important aspect of patient care.

For several reasons, the VHA has chosen the NRS as the tool for pain screening:

1. A large body of research supports the reliability and validity of the NRS as a single index of pain intensity or severity, and it compares favorably to other commonly employed strategies.
2. Studies suggest that the NRS is valid for use in the assessment of acute, cancer, or chronic nonmalignant pain and in varied clinical settings.
3. The NRS is simple for practitioners to describe and easy for most patients to understand and use. There is evidence of a high degree of compliance with the task.
4. The NRS can generally be administered orally and does not require instrumentation.2
   Visual alternatives to screening (e.g., oral, numeric, pictorial) are also reliable and can similarly be used to derive a 0-to-10 score. These various alternative methods are important in accommodating the special requirements of particular patients (e.g., hearing impaired and dysphasic patients) or settings of care (e.g., postoperative settings where oral responses are limited). Some alternative methods are briefly discussed below, and some examples are provided in Section 6 of this toolkit.

The NRS is scored by numeric integers, 0 through 10. The NRS may be used either verbally or visually. Pain intensity levels are measured upon initial visit, following treatment, and periodically, as guidelines dictate.

Numeric Rating Scale (NRS)



When using the NRS for pain, the provider would ask, "On a scale of zero to ten, where zero means no pain and ten equals the worst possible pain, what is your current pain level?"

An individual often experiences pain in more than one site in his/her body. In these situations, patients may be confused about what site to emphasize in reporting their experience of pain using the NRS. Practitioners should encourage the patient to provide a single, global estimate of pain intensity.

Tips for Successful Use of the Numeric Rating Scale

- Allow sufficient time to elicit the patient's self-reported pain rating.
- Provide an environment that is quiet and free of distractions.
- Have appropriate aids for hearing and vision available, e.g., charts with enlarged words, numerical scales, anatomical drawings.
- Speak slowly, clearly, and as loudly as needed.
- Involve family members and/or caregivers.
- Use enlarged copies (8½" x 11") of the NRS.
- Teach the patient how to use the pain rating scale.
- Explain the use of the scale each time it is administered.
- Use the same pain rating scale each time pain is evaluated.
- Provide ample time for the patient to respond to questions.
- If the patient cannot respond verbally, try having him or her point to enlarged words, numerical scales, or anatomical drawings.
- Have the patient provide a single, global estimate of pain intensity.

Suggested Script and Answers to Questions Patient's Frequently Ask

1. (Name of patient) are you having any pain today?
   Yes ***No***

2. Please rate your pain on a zero to ten scale with zero being no pain and ten as the worst pain you can imagine. (Show the patient the pain scale)
   "My pain is a 6."
3. You have reported a pain score of 6 (> = 4). This is a significant level of pain; I want you to discuss this with your doctor or nurse practitioner today.

APPENDIX 5

Practice Guidelines:

- Clinical Practice Guidelines for Acute pain Management and for Cancer Pain Management (for adults and children) by the US Dept of Health and Human Services, Agency for Health care policy and research
- Canadian Guidelines for Palliative Pain Management
- Clinical guide to Neuropathic Pain by McGraw-Hill Companies
- American Pain Society Guidelines for Management of Acute and Chronic Pain in Sickle Cell Disease
- American Pain Society Guidelines for Arthritis Management
- American Society of Anesthesiologists Practice Guidelines for Sedation and Analgesia by Non-Anesthesiologists
- Committee on Drugs & American Academy of Paediatrics Guidelines for Monitoring and management of paediatric patients during and after sedation for diagnostic and therapeutic procedures
- Alberta Palliative Care Resource
- Canadian Association of Nurses in Oncology, Cancer Pain Management Manual
- Registered Nurses of Ontario, Nursing Best Practice Guidelines, Assessment and Management of Pain
- Canadian Pain Society Guidelines
- CPSO Evidence Based Recommendations
- British Pain Society Guidelines
- Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine Acute Pain Management Scientific Evidence

APPENDIX 6

Pain Management Program
Minimum Data Set for Each Service
June 19, 2006

Minimum Data Requirements

Data Elements	Definition	Reasons for Capturing Data	Comments/Questions
1. Start date	The date the referral arrives in the office.	This is the beginning of the wait time.	Use the fax date or date stamp if mailed.
2. End date	The date the initial visit takes place.	This is the end of the wait time.	Are assessments separate from treatments?
3. Priority Rating	Triage category of patient based on the referral.	To identify patient needs and ensure that clinical care is provided to patients with urgent medical problems as a priority.	Are patients currently triaged? If not, should they be triaged?
4. Priority Rating changes over time	A patient on the waiting list is initially prioritized as a level 4, is reassessed, and is prioritized as a 1.	Need to identify if and when a patient's needs change while they are on the wait list.	Does this happen with patients on the waiting list? Should it?
5. Facility	A unique identifier for the facility where treatment is provided.	Demographics	
6. Location	A unique identifier for the location where treatment is provided.	Demographics	
7. Service Provider	A unique identifier for the individual who provides the treatment.	Demographics	
8. Service Type	The pain management services provided such as hypnosis, nerve block, electrical stimulation, physiotherapy, and injection treatments	Demographics	Are there programs/services that require separate data captures?
9. Cancellations	When either the system or patient cancel an appointment.	Need to be able to accurately report wait times based on when the system is ready for the patient.	
10. Rescheduled	When either the system or	Need to be able to	

	patient reschedule an appointment.	accurately report wait times based on when the system is ready for the patient.	
11. Suspensions	Patient availability for an appointment. The criterion requires the patient to be ready and willing to attend to their appointment.	Need to be able to accurately report wait times based on when the system is ready for the patient.	The time when a patient is not available or willing to come can be taken out of the calculation of the wait time.
12. No Shows	Patient does not appear for the scheduled appointment.	Need to be able to accurately report wait times based on when the system is ready for the patient.	The wait time should start over again at the date the new appointment was scheduled.

* Demographics help to identify the physical characteristics of the wait time data.

Additional Requirements

Retrospective Data and a Wait List
The requirement is to capture and report wait times for those who have been successful in accessing service and to also capture and report the wait times for those who are still waiting for service. This latter category includes those who may have an appointment at some point in the future.

Statistical Analysis
The system must have the ability to generate statistical reports (mean, median, cumulative percentage distribution, volumes, etc) by selected time periods for different audiences from the clinician, to program/service, to the Minister. The system needs to be able to produce reports by program, facility and service. Data must be captured at the patient specific level using the unique ID so that it is possible to check if patients are on other waiting lists.

Centralized Waiting List
All patients who are waiting for an appointment need to be in one queue with the appropriate priority rating attached.

Data Audits
All data must be auditable from the point of capture (when the referral arrives) to reporting to ensure data accuracy and quality.

APPENDIX 7

Regional Secondary Service Model for Nova Scotia

A **Core Team**, which is interdisciplinary, should include the following disciplines:

1. A physician is essential to undertake the general medical evaluation
2. An anaesthesiologist to administer nerve blocks, provide pharmacological advice, etc. The anaesthesiologist can be the physician noted in 1.
3. A psychologist or psychiatrist
4. Physiotherapists and/or occupational therapists for rehabilitation
5. A nurse who is part of the team and should have a special interest in chronic pain.
6. Administrative support for booking appointments, patient follow-up, etc.

- Core Team is responsible for the admission of patients to the program and day-to-day patient evaluation as well as the formulation and administration of treatment.
- A Consultant Group should be available consisting of specialists such as orthopedic surgeons, neurologists, etc. and other departments such as medical imaging, to provide specific consultation in selected cases.
- The treatment approach is comprehensive, multimodal and integrated.
- Programs must focus on physical, social, familial, psychological and work factors.
- Due to the need for consistency and stability, other departments should provide personnel whose time is specifically dedicated to the pain program.
- A Chronic Pain program must have **dedicated space** and resources for its service needs.
- The **Cape Breton model:**
    - 2 Anaesthesiologists currently see 50 new patients each, per month, clinic operates 4 days per week
    - Approved Positions:
    - .4 FTE Nurse Manager
    - 1.6 FTE Clinic Nurses
    - .2 FTE Physiotherapist
    - .5 FTE Psychologist
    - .4 FTE Occupational Therapist
    - .4 FTE Kinesthiologist
    - 1.2 FTE Clerical
    - .4 FTE x-ray Technician
    - Space—1500 square feet for a waiting area, administrative staff space and storage, two treatment rooms per physician, an office for each physician, a nurse manager office, physiotherapy/occupational therapy/psychology assessment room, space for blocks and x-ray staff.
- Equipment- PCA pumps, C-Arm

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